

In re Appln. of VAIDYA et al.
Application No. 09/415,901

IN THE CLAIMS:

1-51. (Cancelled)

52. (New) A method for fair scheduling comprising:
receiving a packet at a node;
assigning a start tag to the received packet, the start tag based, at least in part, on a maximum of a time measured by a virtual clock when the packet was received and a finish tag of a previously received packet, wherein the finish tag is based, at least in part, on a start tag of the previously received packet; and
transmitting the received packet at a time based, at least in part, on the assigned start tag.
53. (New) The method according to claim 52 wherein the virtual clock is reset only once to zero and is continually updated whenever a packet is transmitted on the node.
54. (New) The method according to claim 52 further comprising updating the virtual clock in response to the received packet being transmitted, wherein the virtual clock is based, at least in part, on a maximum of a time measured by the virtual clock when the received packet was transmitted and the assigned start tag of the received packet.
55. (New) The method according to claim 52 further comprising assigning a finish tag based, at least in part, on the assigned start tag of the received packet.
56. (New) The method according to claim 52 further comprising assigning a finish tag based, at least in part, on the assigned start tag plus a scaling factor multiplied by a length of the received packet divided by a weight of the node.
57. (New) The method according to claim 52 wherein transmitting the received packet comprises:
attempting to transmit the received packet;

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assigning a back-off interval based, at least in part, on the assigned start tag; and
transmitting the received packet after the back-off interval has expired.

58. (New) The method according to claim 57 wherein the back-off interval is based, at least in part, on the assigned start tag minus a time measured by the virtual clock at a time when an attempt is made to transmit the received packet.

59. (New) A machine-readable medium having computer-executable instructions for performing steps comprising:

receiving a packet at a node;

assigning a start tag to the received packet, the start tag based, at least in part, on a maximum of a time measured by a virtual clock when the packet was received and a finish tag of a previously received packet, wherein the finish tag is based, at least in part, on a start tag of the previously received packet; and

transmitting the received packet at a time based, at least in part, on the assigned start tag.

60. (New) The medium of claim 59 wherein the virtual clock is reset only once to zero and is continually updated whenever a packet is transmitted on the node.

61. (New) The medium of claim 59 having further computer-executable instructions for updating the virtual clock in response to the received packet being transmitted, wherein the virtual clock is based, at least in part, on a maximum of a time measured by the virtual clock when the received packet was transmitted and the assigned start tag of the received packet.

62. (New) The medium of claim 59 having further computer-executable instructions for assigning a finish tag based, at least in part, on the assigned start tag of the received packet.

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63. (New) The medium of claim 59 having further computer-executable instructions for assigning a finish tag based, at least in part, on the assigned start tag plus a scaling factor multiplied by a length of the received packet divided by a weight of the node.

64. (New) The medium of claim 59 wherein transmitting the received packet comprises:

- attempting to transmit the received packet;
- assigning a back-off interval based, at least in part, on the assigned start tag; and
- transmitting the received packet after the back-off interval has expired.

65. (New) The medium of claim 64 wherein the back-off interval is based, at least in part, on the assigned start tag minus a time measured by the virtual clock at a time when an attempt is made to transmit the received packet.

66. (New) A computer system comprising:

- an application generating a packet for transmission through a link operatively coupled to a computer; and

- a controller to receive the packet, assign a start tag for the received packet based, at least in part, on a maximum of a time measured by a virtual clock when the packet was received and a finish tag of a previously received packet, wherein the finish tag is based, at least in part, on a start tag of the previously received packet, and transmit the received packet at a time based, at least in part, on the assigned start tag.